REMARKS

This is a full and timely response to the final Office Action mailed September 16, 2003 (Paper No. 11). Reexamination and reconsideration in light of the foregoing amendments and following remarks is respectfully solicited.

Claims 1-13, and 18 are now pending in the application, with Claim 1 being the sole independent claim. Claims 1, 2 and 4, have been amended, Claims 3, and 14-17 are canceled, and Claim 18 is newly presented herein. No new matter is believed to have been added.

Rejections Under 35 U.S.C. § 103

Claims 15 and 16 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over U.S. Patent No. 5,361,151 (Sonehara et al.), and Claims 1-13, and 17 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Sonehara et al. and U.S. Patent No. 6,295,113 (Yang). These rejections are respectfully traversed.

Independent Claim 1 relates to a reflective liquid crystal display that includes a liquid crystal layer, a first substrate coupled to the liquid crystal layer, a second substrate that is a reflective surface coupled to the liquid crystal layer, and a polarizer, and has a twist angle (ϕ) of about 70° to about 90°, an angle β in a range of about -13° to +13° and a value of Δnd that is about 0.1 μm to about 0.2 μm.

Sonehara et al. relates to a display device, and discloses that the display, in one embodiment, has a twist angle (ϕ) range between 0° and 65°, and the value of Δnd in a range between 0.13 μm to 0.40 μm, and that the display, in a second embodiment, has a twist angle (ϕ) range between 0° and 200°, and the value of Δnd in a range between 0.53 μm to 0.97 μm (col. 10, ll. 20-31). For both of these embodiments, the angle β falls within the various ranges for optimal display characteristics, such as shown in FIG. 6A.

Yang relates to a twisted nematic color liquid crystal display that has two polarizers 200a, 200b, one on each side of the nematic crystal layer 204. The twist angle of the nematic liquid crystal layer 204 is disclosed as being between about 70° and 110°, and the Δnd is disclosed as being about 0.1 μm to about 0.2 μm (col. 3, l. 62 to col. 4, l. 40; FIG. 2). However, as will be further explained, Applicants submit that these disclosed ranges, in combination with Sonehara et al., do not render the claimed invention *prima facie* obvious.

As is generally known to the ordinarily skilled artisan, the display configuration disclosed in Yang is an inherently transmissive display, whereas the display disclosed in Sonehara et al. is

an inherently reflective display. With transmissive displays, light is polarized before it goes into the liquid crystal layer, and is then analyzed after a single pass through the liquid crystal layer, which is why polarizers are disposed on each side of the liquid crystal layer. With reflective displays, the light is polarized before it goes into the liquid crystal layer; however, it is then analyzed after it has undergone a double pass through the liquid crystal layer via internal reflection in the liquid crystal layer. While it is true that Yang does indeed disclose that a reflector 210 may be disposed adjacent the second polarizer 200b, this does not change the fact that the overall display configuration is inherently transmissive.

It is a basic tenet of patent law that obviousness can only be established by combining references where there is some teaching, suggestion, or motivation to do so, either explicitly or implicitly, in the references themselves or in the knowledge generally available to the skilled artisan. In determining the propriety of an obviousness rejection, "it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification." In re Linter, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

In the Office Action, the applied references are technologically disparate from one another. Applicants submit that an ordinarily skilled artisan looking to invent an improved reflective-type display would not even look to Yang for any teachings, let alone be motivated by any of the teachings recited therein. Moreover, even if the ordinarily skilled artisan had Yang before him or her, the teachings would not provide sufficient motivation to make the proposed modification to Sonehara et al., since the teachings of Yang are wholly related to transmissive type displays, whereas Sonehara et al. relates completely to reflective type displays.

In view of the foregoing, reconsideration and withdrawal of the § 103 rejection of at least independent Claim 1 is respectfully solicited.

As regards Claims 15 and 16, it is noted that these claims are canceled, thereby mooting the rejection.

New Claim 18

Newly presented Claim 18 depends from Claim 1, and is therefore allowable over the cited art, as well. Support for this claim can be found at least at in paragraph [0033] of the originally-file specification.

Conclusion

Based on the above, independent Claim 1 is patentable over the citations of record. The dependent claims are also submitted to be patentable for the reasons given above with respect to the independent claims and because each recite features which are patentable in its own right. Individual consideration of the dependent claims is respectfully solicited.

The other art of record is also not understood to disclose or suggest the inventive concept of the present invention as defined by the claims.

This Amendment was not earlier presented because Applicants earnestly believed the prior Amendment placed the subject application in condition for allowance. Accordingly, entry of this Amendment Pursuant to 37 C.F.R. § 1.116 is respectfully requested.

Moreover, entry and consideration of this Amendment are proper under 37 C.F.R. § 1.116 for at least the following reasons. The Amendment overcomes all of the rejections and objections set forth in the above-noted Office Action. The Amendment places the application in better form for appeal, which Applicants fully intend to pursue if necessary. The present Amendment does not raise new issues requiring further search or consideration. Therefore, entry and consideration of the present Amendment are proper under 37 C.F.R. § 1.116 and are hereby requested.

Hence, Applicants submit that the present application is in condition for allowance. Favorable reconsideration and withdrawal of the objections and rejections set forth in the above-noted Office Action, and an early Notice of Allowance are requested.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the below-listed number.

If for some reason Applicant has not paid a sufficient fee for this response, please consider this as authorization to charge Ingrassia Fisher & Lorenz Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

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